ATTACHMENT 1: AUTHORIZATION AND ELIGIBILITY REQUIREMENTS

5.0 PROJECT CONSISTENCY WITH AN ADOPTED IRWM PLAN

All four projects included in this application were either included in the 2007 Pajaro River Watershed IRWM Plan Full Project List or were vetted through the RWMG consistent with the approved IRWM project review and prioritization process. The Corralitos Creek Water Supply and Fisheries Enhancement Project and the SBCWD Expanded Recycled Water Use Project (listed as North San Benito County Regional Recycled Water Project) were included in the 2007 IRWM Project List, as shown in the table in Exhibit F.

The PVWMA Delivered Water Enhancement and Drought Response Irrigation Program and the SCVWD South County Recycled Water Improvements were developed in response to the drought emergency and vetted through the updated Pajaro River Watershed IRWM project review process. On April 23, 2014, the RWMG issued a solicitation for projects for consideration of an Emergency Drought Funding grant application. The solicitation required submittal of information documenting drought impacts and drought relief offered by the proposed project. Additionally, completion and submittal of an IRWM project form was required for any project not already included in the IRWM Plan. The PVWMA and SCVWD recycled water projects were not previously included in the IRWM Plan and, thus, required submittal of IRWM project forms in addition to the drought project form. The two IRWM Project Forms are included in Exhibit F.

All four projects were then evaluated against the Pajaro River Watershed Drought Funding Project Screening Process (included in Exhibit F), which included verification of consistency with the Pajaro River Watershed IRWM and documentation of related IRWM goals and objectives. As shown, the four projects included in this application received high priority scores and were selected for funding consideration.

EXHIBIT F: PROJECT CONSISTENCY WITH ADOPTED IRWM PLAN

January 2000

Table 4-1: Strategies/Projects and Objectives Comparison

Strategies/Project \ Objectives	1) Water Supply								2) Water Quality					3) Flood Management					4) Environmental Protection and Enhancement			
	Meet 100% of M&I and agriculture demands (both current and future conditions) in wet to dry years including the first year of a drought	Meet 85% M&I and 75% agriculture demands (both current and future conditions) in second and subsequent years of a drought	Provide a variety of water supply sources to meet demand (current and future)	Optimize and sustain use of existing import surface water entitlements from the San Felipe Division	Optimize the use of groundwater and aquifer storage	Target recycled water use to make up 5% of total water use by 2010 and 10% of total water use by 2020	Implement water conservation programs for both M&I and agricultural uses consistent with the CVPIA	Protect existing appropriated surface water rights	Meet or exceed all applicable groundwater, surface water, wastewater, and recycled water quality regulatory standards	Protect or improve the quality of water supply sources	Meet or exceed water quality targets established by stakeholders	Aid in meeting TMDLs established for the Pajaro River Watershed	Minimize impacts from stormwater through implementation of established Best Management Practices or other stormwater management projects	Implement flood protection projects throughout the watershed that provide multiple benefits	Reach consensus on the Pajaro River Flood Protection Project necessary to protect existing infrastructure and land uses from flooding and erosion from the 100-year event	Work with stakeholders to preserve existing flood attenuation by implementing land management strategies throughout the watershed	Develop approaches for adaptive management to minimize maintenance requirements and protect quality and availability of water while preserving ecologic and stream functions, and enhancing when appropriate	Provide community benefits beyond flood protection such as public access, open space, recreation, agriculture preservation and economic development	Identify opportunities to enhance the local environment and protect, enhance, and/or restore natural resources, consistent with urban and agricultural land uses, when developing water management strategies	Minimize adverse effects on biological and cultural resources, including riparian habitats, habitats supporting sensitive plant or animal species and archaeological/historic sites when implementing strategies and projects	Identify opportunities to protect, enhance, or restore habitat to support Monterey Bay marine life in conjunction with water supply, water quality or flood protection projects	Identify opportunities for open spaces, trails, parks along creeks and other recreational projects in the watershed that can be incorporated with water supply, water quality or flood protection projects, consistent with public use and property rights
Water Supply Reliability																						
South County Resources Management Program	✓							✓											✓	✓	✓	
Corralitos Creek Surface Fisheries Enhancement Project	✓		✓					✓	✓	✓	✓								✓	✓	✓	
Groundwater Management																						
SBCWD Groundwater Recharge with CVP and Local Sources	✓	✓		✓	✓			✓														
Tres Pinos Water Improvement Project	✓	✓	✓		✓																	
Tile Drains for Localized Groundwater Level Management										✓												
Tree Belt Evapotranspiration																			✓			
SCVWD Groundwater Recharge with CVP and Local Sources	✓	✓		✓	✓			✓		✓												
Main Avenue and Coyote-Madrone Pipeline Repair	✓	✓		✓	✓			✓		✓	✓											
Church Avenue Diversion	✓	✓			✓			✓		✓	✓									✓		
San Pedro Rock Columns	✓	✓		✓	✓						✓											
East Little Llagas Dams	✓	✓			✓																	
PVWMA Groundwater Recharge with CVP and Other Imported Supplies	✓	✓	✓	✓	✓																	
Coastal Distribution System	✓	✓	✓	✓	✓			✓		✓	✓								✓			
Inland Distribution System	✓		✓	✓	✓			✓														
Harkins Slough	✓		✓		✓			✓		✓												
Artesian Well Water Recovery	✓	✓	✓		✓																	
Well Recovery along Pajaro River	✓		✓		✓																	
Water Recycling																						
Watsonville Recycled Water Treatment Facility	✓	✓	✓			✓			✓	✓	✓										✓	
South County Recycled Water Program	✓	✓	✓			✓			✓	✓	✓											
North San Benito County Regional Recycled Water Project	✓	✓	✓			✓			✓	✓	✓											
Sunnyslope Recycled Water Project	✓	✓	✓			✓			✓	✓	✓											
Desalination																						
SBCWD Groundwater Demineralization	✓	✓	✓		✓				✓	✓	✓											
Sunnyslope Groundwater Demineralization	✓	✓	✓		✓				✓	✓	✓											
North Monterey County Desalination Project	✓	✓	✓						✓	✓												
Imported Water																						
PVWMA CVP Contract Reservation	✓		✓	✓							✓											
Mercy Springs Option Agreement	✓	✓	✓	✓							✓											
Pajaro Valley Import Pipeline	✓	✓	✓	✓						✓	✓											
San Luis Reservoir Low Point Project	✓	✓		✓						✓	✓											
Spot Market Transfers and Other Option Agreements	✓	✓	✓							✓	✓											
Purchase of Additional CVP, SWP or Other Water Contracts	✓	✓	✓							✓	✓											
San Felipe Division Operation and Maintenance Improvements	✓	✓		✓																		
Surface Storage																						
Uvas Reservoir Reoperation	✓				✓			✓						✓			✓		✓	✓		
Chesbro Reservoir Reoperation	✓				✓			✓						✓								
Pacheco Reservoir Reoperation	✓	✓			✓			✓						✓					✓	✓		
San Justo Reservoir Rehabilitation	✓	✓		✓	✓																	
Hernandez Reservoir Reoperation	✓	✓			✓			✓						✓					✓	✓		
Paicines Reservoir Rehabilitation	✓	✓			✓			✓											✓	✓		

Strategies/ Project \ Objectives	1) Water Supply								2) Water Quality					3) Flood Management					4) Environmental Protection and Enhancement			
	Meet 100% of M&I and agriculture demands (both current and future conditions) in wet to dry years including the first year of a drought	Meet 85% M&I and 75% agriculture demands (both current and future conditions) in second and subsequent years of a drought	Provide a variety of water supply sources to meet demand (current and future)	Optimize and sustain use of existing import surface water entitlements from the San Felipe Division	Optimize the use of groundwater and aquifer storage	Target recycled water use to make up 5% of total water use by 2010 and 10% of total water use by 2020	Implement water conservation programs for both M&I and agricultural uses consistent with the CVPIA	Protect existing appropriated surface water rights	Meet or exceed all applicable groundwater, surface water, wastewater, and recycled water quality regulatory standards	Protect or improve the quality of water supply sources	Meet or exceed water quality targets established by stakeholders	Aid in meeting TMDLs established for the Pajaro River Watershed	Minimize impacts from stormwater through implementation of established Best Management Practices or other stormwater management projects	Implement flood protection projects throughout the watershed that provide multiple benefits	Reach consensus on the Pajaro River Flood Protection Project necessary to protect existing infrastructure and land uses from flooding and erosion from the 100-year event	Work with stakeholders to preserve existing flood attenuation by implementing land management strategies throughout the watershed	Develop approaches for adaptive management to minimize maintenance requirements and protect quality and availability of water while preserving ecologic and stream functions, and enhancing when appropriate	Provide community benefits beyond flood protection such as public access, open space, recreation, agriculture preservation and economic development	Identify opportunities to enhance the local environment and protect, enhance, and/or restore natural resources, consistent with urban and agricultural land uses, when developing water management strategies	Minimize adverse effects on biological and cultural resources, including riparian habitats, habitats supporting sensitive plant or animal species and archaeological/historic sites when implementing strategies and projects	Identify opportunities to protect, enhance, or restore habitat to support Monterey Bay marine life in conjunction with water supply, water quality or flood protection projects	Identify opportunities for open spaces, trails, parks along creeks and other recreational projects in the watershed that can be incorporated with water supply, water quality or flood protection projects, consistent with public use and property rights
Water and Wastewater Treatment																						
Morgan Hill Package Plant	✓			✓					✓													
San Juan Bautista Surface Water Treatment Plant	✓			✓		✓			✓	✓	✓											
Morgan Hill Wellhead Treatment	✓	✓			✓				✓	✓	✓											
Aromas Water District Wellhead Treatment	✓	✓			✓				✓	✓	✓											
Hollister Groundwater Softening	✓	✓	✓		✓				✓	✓	✓											
Hollister Wastewater Treatment Plant Improvements						✓			✓	✓	✓											
Sunnyslope Wastewater Treatment Plant Improvements						✓			✓	✓	✓											
Tres Pinos Wastewater Improvement Project									✓	✓												
SCRWA Discharge Pipeline						✓			✓	✓												
Water Transfers																						
CVP water transfers within the San Felipe Division	✓		✓	✓																		
Non-CVP Water Transfers and Banking Agreements	✓	✓	✓	✓	✓			✓														
River Conveyance	✓		✓		✓														✓			
Conjunctive Use																						
Groundwater and Surface Water Blending	✓	✓	✓		✓				✓	✓	✓											
Arroyo Dos Picachos	✓		✓					✓		✓	✓									✓		
Arroyo Los Viboras	✓		✓					✓		✓	✓									✓		
Pacheco Creek	✓		✓							✓	✓									✓		
Cienega Valley	✓	✓	✓		✓					✓	✓									✓		
Water Conservation																						
Agricultural Water Conservation	✓	✓					✓			✓		✓										
Urban Water Conservation	✓	✓					✓															
Water Conservation Studies, Research, Pilot Programs and Future Projects	✓	✓					✓															
Water Quality Protection and Improvement																						
Regional Mobile Lab	✓	✓					✓		✓	✓	✓	✓								✓	✓	✓
Ranchette Series							✓		✓	✓	✓	✓	✓				✓			✓	✓	✓
Nitrate Management Program									✓	✓	✓	✓	✓									✓
Salinity Education Program										✓	✓											
Water Softener Rebate Program										✓	✓											
Solvent and Toxins Liaison Program									✓	✓												
Pumped Groundwater Placed into Pajaro River					✓					✓	✓											
Export Pipeline					✓					✓	✓											
Recharge Area Protection Program					✓					✓			✓									
Stormwater Capture and Management																						
Constructed Wetlands Treatment									✓	✓	✓	✓	✓							✓	✓	✓
Tequisquita Slough Wetland Treatment Project									✓	✓	✓	✓	✓							✓	✓	✓
Stormwater Treatment through Industrial WWTP									✓	✓	✓	✓	✓									
NPS Pollution Control																						
Santa Cruz Partners in Restoration Permit Coordination Program									✓	✓	✓	✓	✓			✓	✓			✓	✓	
San Benito and South Santa Clara Permit Coordination Program									✓	✓	✓	✓	✓			✓	✓			✓	✓	
Conditional Agricultural Waiver							✓		✓	✓	✓	✓	✓			✓	✓			✓	✓	✓
Green Valley Watershed Stream Bank Stabilization									✓	✓	✓	✓	✓				✓			✓	✓	✓
Coward Creek Stream Bank Stabilization									✓	✓	✓	✓	✓				✓			✓	✓	✓
Vegetative Buffer Strips									✓	✓	✓	✓	✓			✓	✓	✓		✓	✓	✓

Strategies/ Project / Objectives	1) Water Supply								2) Water Quality					3) Flood Management					4) Environmental Protection and Enhancement			
	Meet 100% of M&I and agriculture demands (both current and future conditions) in wet to dry years including the first year of a drought	Meet 85% M&I and 75% agriculture demands (both current and future conditions) in second and subsequent years of a drought	Provide a variety of water supply sources to meet demand (current and future)	Optimize and sustain use of existing import surface water entitlements from the San Felipe Division	Optimize the use of groundwater and aquifer storage	Target recycled water use to make up 5% of total water use by 2010 and 10% of total water use by 2020	Implement water conservation programs for both M&I and agricultural uses consistent with the CVPIA	Protect existing appropriated surface water rights	Meet or exceed all applicable groundwater, surface water, wastewater, and recycled water quality regulatory standards	Protect or improve the quality of water supply sources	Meet or exceed water quality targets established by stakeholders	Aid in meeting TMDLs established for the Pajaro River Watershed	Minimize impacts from stormwater through implementation of established Best Management Practices or other stormwater management projects	Implement flood protection projects throughout the watershed that provide multiple benefits	Reach consensus on the Pajaro River Flood Protection Project necessary to protect existing infrastructure and land uses from flooding and erosion from the 100-year event	Work with stakeholders to preserve existing flood attenuation by implementing land management strategies throughout the watershed	Develop approaches for adaptive management to minimize maintenance requirements and protect quality and availability of water while preserving ecologic and stream functions, and enhancing when appropriate	Provide community benefits beyond flood protection such as public access, open space, recreation, agriculture preservation and economic development	Identify opportunities to enhance the local environment and protect, enhance, and/or restore natural resources, consistent with urban and agricultural land uses, when developing water management strategies	Minimize adverse effects on biological and cultural resources, including riparian habitats, habitats supporting sensitive plant or animal species and archaeological/historic sites when implementing strategies and projects	Identify opportunities to protect, enhance, or restore habitat to support Monterey Bay marine life in conjunction with water supply, water quality or flood protection projects	Identify opportunities for open spaces, trails, parks along creeks and other recreational projects in the watershed that can be incorporated with water supply, water quality or flood protection projects, consistent with public use and property rights
Flood Management																						
Soap Lake Floodplain Preservation Project					✓				✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
Levee Reconstruction Project									✓		✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	
ALERT station monitoring														✓				✓				
Upper Llagas Creek Flood Protection Project										✓		✓		✓			✓		✓	✓		✓
Lower Llagas Creek Flood Protection Project (Capacity Restoration)												✓	✓	✓			✓	✓	✓	✓	✓	✓
Uvas Creek Flood Protection												✓	✓	✓			✓	✓	✓	✓	✓	✓
San Juan Basin Surface Drainage									✓	✓		✓	✓	✓	✓	✓	✓		✓	✓	✓	
Ecosystem Restoration																						
Restoration of the Upper Pajaro River Floodplain					✓												✓	✓	✓	✓	✓	✓
Tar Creek Bridge Replacement and Bank Stabilization											✓	✓					✓		✓	✓	✓	
Pajaro River Lagoon Monitoring																			✓	✓	✓	
Coroto Pit Restoration																			✓	✓		✓
Environmental and Habitat Protection and Improvement																						
Watsonville Slough Enhancement																			✓	✓		✓
Tick Creek Riparian Enhancement											✓	✓	✓				✓		✓	✓		
Uvas Creek Fish Passage at Silva Crossing														✓			✓	✓	✓	✓	✓	✓
Bolsa Road Fish Ladder																			✓	✓	✓	✓
Stream and Watershed Protection Program										✓							✓	✓	✓	✓	✓	
Adopt-a-Creek											✓								✓	✓		
Watershed Stewardship Grant Program										✓	✓							✓	✓	✓	✓	
Recreation and Public Access																						
Open Space Authority Acquisitions																			✓			✓
Trails, Parks & Open Space Grant																			✓			✓
Pajaro River Access at the Watsonville Treatment Plant																			✓	✓		✓
Pajaro River Parkway														✓				✓	✓	✓		✓
San Benito River Parkway																			✓			✓
Wetlands Enhancement and Creation																						
College Lake Wetland and Stream Restoration										✓									✓	✓		
Watershed Planning																						
Groundwater Study & Biological Assessment of the Upper Pajaro River					✓													✓	✓	✓	✓	
Historic Ecological Study of the Upper Pajaro																	✓		✓	✓	✓	
Pajaro River Watershed Council																			✓	✓	✓	✓
Pajaro River Watershed Study									✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

PROJECT OVERVIEW

General Project Information

Project Title:	Delivered water enhancement & drought response irrigation program (DRIP)
Project Location:	Lower Pajaro River watershed including southern Santa Cruz and northern Monterey Counties
Estimated Cost:	$1,514,615

Brief Project Description (1 to 2 sentences):

The Pajaro Valley Water Management Agency (PVWMA or Agency) and partners propose a delivered water supply enhancement project in combination with a three year Drought Response Irrigation Program (DRIP) as drought response measures that will provide immediate relief by reducing groundwater pumping in the area suffering from seawater intrusion, maximizing the use of delivered water, which includes recycled water and blend sources, supporting a sustainable groundwater supply and providing secondary benefits to water quality and drinking water

Project Proponent Information

Contact Name:	Brian Lockwood, PG, CHg, Senior Water Resources Hydrologist
Affiliation:	Pajaro Valley Water Management Agency
Address:	36 Brennan St, Watsonville, CA 95076
Phone Number:	(831) 722-9292
Email:	lockwood@pvwater.org

Other participating agencies/organizations (if applicable):

Central Coast Agricultural Water Quality Coalition, Resource Conservation District of Santa Cruz County, Resource Conservation District of Monterey County, University of California Cooperative Extension, Natural Resources Conservation Service, City of Watsonville

DETAILED PROJECT INFORMATION

Description

Please provide a description of your project (including the location) and its purpose, what will be constructed and/or implemented, how the project will function, the area(s) and/or entities that will be affected by or will benefit from the project, and any potential obstacles to implementation.

In order to meet delivered water quality objectives established by the Agency's Water Quality and Project Operations Committee (WQPOPs), recycled water is blended with other supplies to reduce the concentration of salts. The Agency proposes to plumb its Blend Wells into the Coastal Distribution System at a location that will allow for efficient, in-pipe mixing of recycled and blend water. This will help to ensure a more equal water quality is provided to all customers within the distribution system, which will be used to replace groundwater extractions from the overdrafted aquifer in the DWZ. A Drought Response Irrigation Program (DRIP) will be coupled with the delivered water enhancement project to increase its benefits to the groundwater basin by increasing and optimizing the efficient use of supplemental irrigation water. The program will provide outreach, technical assistance, training and subsidized equipment for landowners, growers and irrigators to maximize the efficient use of delivered water and reduce groundwater pumping, monitor water use and program effectiveness on individual and basin-wide scales, and enable growers to adopt new, beneficial practices that support a more sustainable groundwater supply. The program will be focused in the DWZ, and builds upon existing programs available to growers throughout the Pajaro Valley.

The proposal builds upon a strong partnership between the Pajaro Valley Water Management Agency (PVWMA or Agency), the Central Coast Ag Water Quality Coalition (Coalition), and the Resource Conservation District of Santa Cruz County (RCD SCC). The PVWMA provides project leadership to implement the delivered water enhancement project. The Coalition and RCD SCC will partner to implement the DRIP. The Coalition will provide coordination and will lead program outreach, and track and report program effectiveness. The RCD SCC will lead technical assistance, implementation, and performance monitoring components.

Technical Feasibility

Discuss the technical feasibility of the project. If possible, cite references that contain information about the proposed project and detail the technical feasibility of the project.

PVWMA has been successful in planning, constructing and operating several large-scale water supply facilities, on time and under budget. These include the Harkins Slough Managed Aquifer Recharge and Recovery Facility, the Recycled Water Facility, over twenty miles of underground water conveyance pipeline (the Coastal Distribution System) and more. The management team has a strong track record of overseeing project implementation and completing hydrologic modeling activities to verify efficacy of existing and proposed water supply facilities. The RCD SCC and the Coalition have a proven record of success bringing their respective strengths in technical assistance and outreach together in collaborative projects to achieve conservation outcomes in the Pajaro Watershed. Since 2012, these organizations have partnered with UCCE to deliver irrigation efficiency outreach and implementation to over 25 growers in the Pajaro Valley. The UC Cooperative Extension will serve as technical advisor for the Drought Response Irrigation Program, with expertise in irrigation water management including conservation and efficient use of water in farming operations. The NRCS provides additional technical expertise and implementation assistance, leveraging farm bill funded technical assistance and cost-share programs to implement improved water efficiency practices.

The DRIP program is modeled after a successful program undertaken in Santa Clara County during 2008-2011, led by Santa Clara Farm Bureau and the Coalition. The technical assistance program also leverages and builds upon the IRWM funded Mobile Irrigation Lab Program in Pajaro Valley. The technical assistance program includes essential services to maximize water savings, reduce energy use, and improve water quality (Hartz 2006, UCCE & NRCS Farm Water Quality Planning, American Farmland Trust- grower testimonial, 2014). Growers will have access to a suite of irrigation scheduling tools and practices that have been demonstrated to result in 20-45% reductions in water use within one season. (American Farmland Trust 2014, Cahn, pers comm). The performance monitoring activities mirror those of the Performance-based Incentives for Conservation in Agriculture (PICA) pilot project, initiated by the RCD SCC in 2012 with growers in the Pajaro Valley.

References:

Shaffer and Thompson of American Farmland Trust, 2013. Encouraging California Specialty Crop Growers to Adopt Environmentally Beneficial Management Practices for Efficient Irrigation and Nutrient Management: Lessons from A Producer Survey and Focus Groups

American Farmland Trust, 2014. Stewardship Profiles in California Agriculture, http://www.farmland.org/programs/campaign/california-voices.asp

Hartz T. K., 2006. Vegetable Production Best Management Practices to Minimize Nutrient Loss, HortTechnology, July-September vol. 16 no. 3 pp. 398-403

University of California Cooperative Extension & Natural Resources Conservation Service. Farm Water Quality Planning Management Practice: Irrigation mobile laboratory http://ucanr.edu/sites/farmwaterquality/files/156399.pdf

Cahn, Michael, Richard Smith, Scott Rossi (Tanimura & Antle), Forrest Melton, 2013. American Farmland Trust BMP challenge. Unpublished data.

Pajaro River Watershed IRWM Regional Goals & Objectives

Put an X next to any goal that the proposed project will achieve.

Water Supply

x	1.	Meet 100% of M&I and agriculture demands (both current and future conditions) in wet to dry years including the first year of a drought.
x	2.	Meet 85% M&I and 75% agriculture demands (both current and future conditions) in second and subsequent years of a drought.
x	3.	Identify and address water supply needs of disadvantaged communities in the Pajaro River Watershed.
x	4.	Implement water conservation programs to reduce M&I and agricultural water use consistent with SBx7-7 and CVPIA.
x	5.	Maximize the use of recycled water during the irrigation season and expand other uses of recycled water.
x	6.	Optimize the use of groundwater and aquifer storage.
x	7.	Maximize conjunctive use opportunities including interagency conjunctive use.
	8.	Optimize and sustain the use of existing import surface water entitlements from the San Felipe Unit.

x	9. Maximize the beneficial use of existing local water supplies while protecting existing surface water rights.

Water Quality

x	1. Meet or exceed all applicable groundwater, surface water, wastewater, and recycled water quality regulatory standards.
	2. Identify and address the drinking water quality of disadvantaged communities in the Pajaro River Watershed.
x	3. Protect groundwater resources from contamination including salts and nutrients.
x	4. Address impacts from surface water runoff through implementation of Best Management Practices or other surface water management strategies.
x	5. Meet or exceed delivered water quality targets established by recycled water users.

Flood Protection

	1. Implement flood management strategies throughout the watershed that provide multiple benefits.
	2. Reach consensus on the Pajaro River Risk Reduction Project necessary to protect existing urban areas and infrastructure from flooding and erosion from the 100-year event and to maximize opportunities to protect agricultural land uses.
	3. Work with stakeholders to preserve existing flood attenuation by implementing land management and conservation strategies throughout the watershed.
	4. Develop approaches for adaptive management to minimize maintenance requirements and protect quality and availability of water while preserving ecologic and stream functions.
	5. Provide community benefits beyond flood protection such as public access, open space, recreation, agriculture preservation and economic development.

Environmental Protection and Enhancement

x	1. Address opportunities to enhance the local environment and protect and/or restore natural resources, in cooperation with landowners, when developing water management strategies.
x	2. Improve biological and cultural resources, including riparian habitats, habitats supporting sensitive plant or animal species and archaeological/historic sites when implementing strategies and projects.
x	3. Address opportunities to protect, enhance, or restore habitat to support Monterey Bay National Marine Sanctuary marine life in conjunction with water supply management strategies.
	4. Address opportunities for open spaces, trails, parks along creeks and other recreational projects in the watershed that can be incorporated with water management strategies, consistent with public use and property rights.

Integration and Coordination

Put an X next to any Resource Management Strategies (RMS) that the proposed project will address.

Reduce Water Demand	Agricultural Water Use Efficiency	x
	Urban Water Use Efficiency	
Improve Operational Efficiency and Transfers	Conveyance - Delta	
	Conveyance - Regional/local	x
	System Reoperation	x
	Water Transfers	
Increase Water Supply	Conjunctive Management & Groundwater Storage	x
	Desalination	
	Precipitation Enhancement	
	Recycled Municipal Water	x
	Surface Storage - CALFED	
	Surface Storage - Regional/local	

Improve Water Quality	Drinking Water Treatment & Distribution	
	Groundwater Remediation /Aquifer Remediation	x
	Matching Quality to Use	x
	Pollution Prevention	
	Salt & Salinity Management	x
	Urban Runoff Management	
Improve Flood Management	Flood Risk Management	
Practice Resources Stewardship	Agricultural Lands Stewardship	x
	Economic Incentives (Loans, Grants, & Water Pricing)	x
	Ecosystem Restoration	
	Forest Management	
	Recharge Area Protection	
	Water-Dependent Recreation	
	Watershed Management	x
Other Strategies	Crop Idling for Water Transfers	
	Dewvaporation or Atmospheric Pressure Desalination	
	Fog Collection	
	Irrigated Land Retirement	
	Rainfed Agriculture	
	Waterbag Transport/Storage Technology	

Please describe: This project will increase delivered water supply and improve delivered water quality by plumbing supplemental water from PVWMA Blend Wells into the Coastal Distribution System at place where it will efficiency mix with recycled water to better meet the water quality standards needed for agricultural demand. In addition, this project will reduce demand on the overdrafted aquifer through implementation of a drought response irrigation program (DRIP).

List the projects that were integrated to develop a single proposed project, if applicable.

N/A

List the agencies and organization that are working together to implement the project.

Pajaro Valley Water Management Agency, Central Coast Ag Water Quality Coalition, Resource Conservation Districts of Santa Cruz and Monterey Counties, UC Cooperative Extension, USDA Natural Resources Conservation Service, City of Watsonville

Climate Change Mitigation and Adaptation

Put an X next to any climate change adaptation or mitigation strategy the proposed project will contribute to.

	Adaption Strategies
x	Improve water supply reliability
x	Expand conjunctive use of multiple water supply sources
x	Increase water use and/or reuse efficiency
x	Provide additional water supply
x	Promote water quality protection
x	Reduce water demand
x	Advance / expand recycled water use
	Promote urban runoff reuse
	Address sea level rise

	Address other anticipated climate change impacts
	Improve flood control
x	Promote habitat protection
	Establish migration corridors
	Re-establish river-floodplain hydrologic continuity
	Re-introduce anadromous fish populations to watershed
	Enhance and protect watershed forest and meadow systems

Please describe: This project expands water supply reliability, specifically in the DWZ, and promotes additional efficiency and reduced water demand. By reduced demand and increased water supply reliability, water quality of the groundwater basin is protected and multiple water supply sources are further protected.

Mitigation Strategies

x	Increase water use efficiency or promote energy-efficient water demand reduction
x	Improve water system energy efficiency
x	Advance / expand recycled water use
	Promote urban runoff reuse
	Promote use of renewable energy sources
	Contribute to carbon sequestration

Please describe: In order to have a more effective impact with the Recycled Water Facility project, outreach, technical assistance and monitoring will occur in the DWZ focus area and throughout the valley to imporve the water systems efficiency and expansion of the recycled water now made more reliable.

Does the proposed project reduce regional greenhouse gas emissions and/or improve energy efficiency? If so, explain how.

The project reduces green house gas emissions through reduced water pumping and associated energy savings.

Social Benefits and Impacts

Does the project provide specific benefits to disadvantaged communities and/or Native American tribal communities? If so, explain.

The project elleviates pressure on the drinking water supply to the city of Watsonville, a disadvantaged community. Additionally, it provides technical and financial support for growers to implement improved irrigation efficiency, including traditionally underserved and new farmers (as defined by the USDA NRCS).

Does the project address any known environmental justice issues?

Supports access to safe potable water and protection of a safe environment for living and working through improved water quality as a result of irrigation efficiency enhancements.

Project Cost

Total Estimated Capital Cost	$1,514,615
Annual Operation & Maintenance (O&M) Cost	$0
Cost Basis (Year)	
Source(s) of Funding for Capital	IRWM, match
Source(s) of Funding for O&M Cost	
Project Life (years)	3
Provide link to project cost estimate, if available	See attached budget in drought form

Economic Feasibility

Has a benefit:cost or cost effectiveness analysis been completed for your project? If so, please cite reference and briefly summarize. If no economic analysis has been completed for the project, the project may receive zero points out of a possible 100 points for the financial considerations criteria unless the project is a DAC project. If the project is not a DAC project but the B:C ratio is expected to be greater than 1, please provide a justification. The lack of an economic analysis may also affect the project's readiness score.

In 2010 the PVWMA Board of Directors established an Ad Hoc Basin Management Plan committee and charged it with finding a suite of projects and programs that would balance the groundwater basin and reduce seawater intrusion. Hydrologic modeling was a part of this effort and was used to simulate the most efficient ways to reach the Ad Hoc BMP committee's objectives. Reducing coastal groundwater pumping by providing a supplemental supply of water ranked highest. A robust conservation program with a goal of achieving a water use reduction of 5,000 acre-feet per year was also ranked highly and was included in recommeded projects and programs (BMP Update). Conservation and increased water deliveries ranked highest in terms of dollars per acre-foot.

If known, please provide the Benefit:Cost Ratio.

Provide a detailed discussion of the benefits the project will provide. To the extent possible, quantify changes and benefits (e.g. water quality and water supply benefits) that will result from project implementation; otherwise, describe benefits qualitatively.

The proposed delivered water enhancement project will reduce the strain on the City's potable water supply by approximately 800 acre-feet per year. Plumbing the Blend Wells into the CDS near the Recycled Water Facility will provide a source of high quality blend supply, and relieve pressure on the City's system by reducing the need for the City's water. The blend well plumbing project will improve delivered water quality and help lead to increase in the use of delivered water by 1,000 acre-feet per year, reducing coatal pumping by an equal amount. Through technical assistance, implementation, and monitoring, DRIP will improve irrigation efficiency on 20 ranches with a goal of reducing water use among participating ranches by 10 - 20 %. These goals align with the conservation targets of the Basin Management Plan and the voluntary reduction target requested by the PVWMA Board. Additional benefits include reduced GHG emissions due to less pumping, improved surface and groundwater quality, and protection of important wildlife habitat.

Project Readiness

Proposed Project Start Date:	1-Apr-15
Anticipated Project Completion Date:	1-Apr-18

Please Indicate the status (pending, in process, complete) of the following.

Project Element	Status	% Complete	Estimated Completion Date
Feasibility Study	Complete	100	Complete
Preliminary design	In Process	10	Jun-14
CEQA/NEPA	Complete	100	Complete
Permit Acquisition	Complete	100	Complete
Construction Docs	In Process	10	Jun-14

PROJECT OVERVIEW

General Project Information

Project Title:	South County Recycled Water Pipeline - Short-Term CIP Implementation
Project Location:	Gilroy
Estimated Cost:	$23.7M

Brief Project Description (1 to 2 sentences):

This project completes construction of the South County Recycled Water Master Plan Short-term CIP to increase delivery capacity by about 1200 AFY and improve infrastructure reliability. The short-term CIP includes construction of approximately 16,000 feet of 16-inch diameter pipeline, approximately 24,000 feet of 30-inch diameter pipeline, a second 3 million gallons of onsite treated recycled water storage capacity (for a total of 6 million gallons), and an additional 6 mgd of distribution pumping capacity (for a total of 9 mgd of new capacity). It also includes new connections and four new turnouts, three farms and one plant nursery.

Project Proponent Information

Contact Name:	Luis Jaimes
Affiliation:	Santa Clara Valley Water District
Address:	5750 Almaden Expressway, San Jose, CA 95118
Phone Number:	408-630-2576
Email:	ljaimes@valleywater.org

Other participating agencies/organizations (if applicable):

South County Regional Wastewater Authority, City of Gilroy

DETAILED PROJECT INFORMATION

Description

Please provide a description of your project (including the location) and its purpose, what will be constructed and/or implemented, how the project will function, the area(s) and/or entities that will be affected by or will benefit from the project, and any potential obstacles to implementation.

SCVWD, SCRWA, Gilroy, and Morgan Hill completed the South County Recycled Water Master Plan in 2004 for expanding the use of tertiary treated recycled water. The master plan included three capital improvement program phases. The immediate-term CIP has been completed. The short-term CIP includes looping and expanding the existing system by contructing a new recycled water pipeline extending from the SCRWA facility to Christmas Hill Park and an extension off the existing system. The short-term CIP includes construction of approximately 16,000 feet of 16-inch diameter pipeline, approximately 24,000 feet of 30-inch diameter pipeline, a second 3 million gallons of onsite treated recycled water storage capacity (for a total of 6 million gallons), and an additional 6 mgd of distribution pumping capacity (for a total of 9 mgd of new

capacity). New customers include the Gilroy Sports Park, Glen Loma Development, and Cintas Corporation.

An extension from the existing recycled water pipeline to the Gilroy Sports Park has been completed, as has the first 1/2-mile of new recycled pipeline from the SCRWA facility. The next phase of work includes extending the new recycled water pipeline from Southside Drive to the Sports Park (which will loop the system provide redundancy and additional capacity) and an extension to Cintas Corporation. The last phase of work will be to extend the new recycled water pipepline through the Glen Loma Development to Christmas Hill Park and add additional storage and pumping capacity. The master plan estimated the the short-term CIP will increase recycled water use by about 1200 AFY at build-out.

In addition to the master plan improvement described above, the District is installing at least three turnouts to provide irrigation water to commercial and agricultural users. These turnouts are planned for construction in 2014 and 2015 and will increase recycled water use by approximately 520 AFY.

The project reduces demands on groundwater in the Llagas Groundwater Subbasin and is part of the SCVWD 2012 Water Supply and Infrastructure Master Plan.

Technical Feasibility

Discuss the technical feasibility of the project. If possible, cite references that contain information about the proposed project and detail the technical feasibility of the project.

The project was evaluated as part of the 2004 South County Recycled Water Master Plan. http://www.cityofgilroy.org/cityofgilroy_files/city_hall/community_development/engineering/master_plans/SouthCountyRecWatMP.pdf. The challenges with the project are matching recycled water expansion with development, as well as utility conflicts in the preferred alignment. A programmatic EIR has been completed, as has the project-level EIR for extending the

Pajaro River Watershed IRWM Regional Goals & Objectives

Put an X next to any goal that the proposed project will achieve.

	Water Supply
X	1. Meet 100% of M&I and agriculture demands (both current and future conditions) in wet to dry years including the first year of a drought.
X	2. Meet 85% M&I and 75% agriculture demands (both current and future conditions) in second and subsequent years of a drought.
	3. Identify and address water supply needs of disadvantaged communities in the Pajaro River Watershed.
	4. Implement water conservation programs to reduce M&I and agricultural water use consistent with SBx7-7 and CVPIA.
X	5. Maximize the use of recycled water during the irrigation season and expand other uses of recycled water.
X	6. Optimize the use of groundwater and aquifer storage.

X	7. Maximize conjunctive use opportunities including interagency conjunctive use.
	8. Optimize and sustain the use of existing import surface water entitlements from the San Felipe Unit.
	9. Maximize the beneficial use of existing local water supplies while protecting existing surface water rights.

Water Quality

	1. Meet or exceed all applicable groundwater, surface water, wastewater, and recycled water quality regulatory standards.
	2. Identify and address the drinking water quality of disadvantaged communities in the Pajaro River Watershed.
	3. Protect groundwater resources from contamination including salts and nutrients.
	4. Address impacts from surface water runoff through implementation of Best Management Practices or other surface water management strategies.
X	5. Meet or exceed delivered water quality targets established by recycled water users.

Flood Protection

	1. Implement flood management strategies throughout the watershed that provide multiple benefits.
	2. Reach consensus on the Pajaro River Risk Reduction Project necessary to protect existing urban areas and infrastructure from flooding and erosion from the 100-year
	3. Work with stakeholders to preserve existing flood attenuation by implementing land management and conservation strategies throughout the watershed.
	4. Develop approaches for adaptive management to minimize maintenance requirements and protect quality and availability of water while preserving ecologic and
	5. Provide community benefits beyond flood protection such as public access, open space, recreation, agriculture preservation and economic development.

Environmental Protection and Enhancement

	1. Address opportunities to enhance the local environment and protect and/or restore natural resources, in cooperation with landowners, when developing water management
	2. Improve biological and cultural resources, including riparian habitats, habitats supporting sensitive plant or animal species and archaeological/historic sites when
	3. Address opportunities to protect, enhance, or restore habitat to support Monterey Bay National Marine Sanctuary marine life in conjunction with water supply management
	4. Address opportunities for open spaces, trails, parks along creeks and other recreational projects in the watershed that can be incorporated with water management

Integration and Coordination

Put an X next to any Resource Management Strategies (RMS) that the proposed project will address.

Reduce Water Demand	Agricultural Water Use Efficiency	
	Urban Water Use Efficiency	
Improve Operational Efficiency and Transfers	Conveyance - Delta	
	Conveyance - Regional/local	
	System Reoperation	
	Water Transfers	
Increase Water Supply	Conjunctive Management & Groundwater Storage	X
	Desalination	
	Precipitation Enhancement	
	Recycled Municipal Water	X
	Surface Storage - CALFED	
	Surface Storage - Regional/local	
Improve Water Quality	Drinking Water Treatment & Distribution	
	Groundwater Remediation /Aquifer Remediation	X
	Matching Quality to Use	X
	Pollution Prevention	
	Salt & Salinity Management	X
	Urban Runoff Management	
Improve Flood Management	Flood Risk Management	
Practice Resources Stewardship	Agricultural Lands Stewardship	
	Economic Incentives (Loans, Grants, & Water Pricing)	X
	Ecosystem Restoration	
	Forest Management	
	Recharge Area Protection	
	Water-Dependent Recreation	
	Watershed Management	
Other Strategies	Crop Idling for Water Transfers	
	Dewvaporation or Atmospheric Pressure Desalination	
	Fog Collection	
	Irrigated Land Retirement	
	Rainfed Agriculture	
	Waterbag Transport/Storage Technology	

Please describe: The project is part of SCVWD's conjunctive management program and helps maintain groundwater storage. The project provides water that is of quality for its intended to use and preserves potable water for potable uses.

List the projects that were integrated to develop a single proposed project, if applicable.

List the agencies and organization that are working together to implement the project.

SCVWD, SCRWA, Gilroy, United States Bureau of Reclamation

Climate Change Mitigation and Adaptation

Put an X next to any climate change adaptation or mitigation strategy the proposed project will contribute to.

Adaption Strategies

X	Improve water supply reliability
X	Expand conjunctive use of multiple water supply sources
X	Increase water use and/or reuse efficiency
X	Provide additional water supply
	Promote water quality protection
	Reduce water demand
X	Advance / expand recycled water use
	Promote urban runoff reuse
	Address sea level rise
	Address other anticipated climate change impacts
	Improve flood control
	Promote habitat protection
	Establish migration corridors
	Re-establish river-floodplain hydrologic continuity
	Re-introduce anadromous fish populations to watershed
	Enhance and protect watershed forest and meadow systems

Please describe:

Mitigation Strategies

	Increase water use efficiency or promote energy-efficient water demand reduction
	Improve water system energy efficiency
X	Advance / expand recycled water use
	Promote urban runoff reuse
	Promote use of renewable energy sources
	Contribute to carbon sequestration

Please describe:

Does the proposed project reduce regional greenhouse gas emissions and/or improve energy efficiency? If so, explain how.

Social Benefits and Impacts

Does the project provide specific benefits to disadvantaged communities and/or Native American tribal communities? If so, explain.

There are 11 DAC blocks, with a total population of about 14,000, in the Llagas Subbasin. This project will help maintain water supply and water quality throughout the subbasin.

Does the project address any known environmental justice issues?

Project Cost

Total Estimated Capital Cost	$23,700,000
Annual Operation & Maintenance (O&M) Cost	$20,000
Cost Basis (Year)	2012
Source(s) of Funding for Capital	Local agency water utility funds; federal grant
Source(s) of Funding for O&M Cost	Local agency water utility funds
Project Life (years)	) years; Pumps - 20 years
Provide link to project cost estimate, if available	The District's CIP (http://www.valleywater.org/CIP.aspx) has information on estimated costs. See Water Supply section.

Economic Feasibility

Has a benefit:cost or cost effectiveness analysis been completed for your project? If so, please cite reference and briefly summarize. If no economic analysis has been completed for the project, the project may receive zero points out of a possible 100 points for the financial considerations criteria unless the project is a DAC project. If the project is not a DAC project but the B:C ratio is expected to be greater than 1, please provide a justification. The lack of an economic analysis may also affect the project's readiness score.

The estimated cost per acre-foot for the Short-term CIP (in 2004 $) is $1,180 per AF. The cost effectiveness of the project is

currently being evaluated.

If known, please provide the Benefit:Cost Ratio.

Provide a detailed discussion of the benefits the project will provide. To the extent possible, quantify changes and benefits (e.g. water quality and water supply benefits) that will result from project implementation; otherwise, describe benefits qualitatively.

At build-out, the project will provide approximately 1800 AFY of recycled water. Other benefits included reduced wastewater discharge at the SCRWA facility and, potentially, less recycled water discharge to the Pajaro River during wet weather.

Project Readiness

Proposed Project Start Date:	In process
Anticipated Project Completion Date:	2020

Please Indicate the status (pending, in process, complete) of the following.

Project Element	Status	% Complete	Estimated Completion Date
Feasibility Study	Complete	100%	2004
Preliminary design	In progress	10%	2016
CEQA/NEPA	In progress	50%	2016
Permit Acquisition	In progress	10%	2016
Construction Docs	In progress	10%	2016

The turnouts will be ready for construction by 2015.

Pajaro River Watershed IRWM
Drought Funding Project Screening Process

The Pajaro River Watershed IRWM region received five project submittals through the Drought Funding Project Solicitation Process. The Regional Water Management Group screened the projects through the methodology below and is recommending four of the five projects be included in a grant application to the Department of Water Resources seeking funding from the Emergency Drought Program.

Pajaro River Watershed IRWM Drought Funding Project Screening Process involved the following:

1. IRWM Consistency
    a. IRWM Related (Y/N)
    b. Includes related IRWM Goals and Objectives (Y/N)

2. Screen out ineligible project applicants or ineligible project types and document rationale

3. Evaluate and rank project readiness
    a. Confirm April 1, 2015 construction start date
    b. Rank degree of certainty (High/Medium/Low)
        i. CEQA Complete or low level CEQA analysis required
        ii. Permitting Complete or limited permitting issues
        iii. Level of Design or demonstration of expedited design process
        iv. Match funding secured

4. Evaluate and rank project competitiveness and degree of benefit
    a. Drought impacts to service area (H/M/L)
    b. Project mitigation of drought impacts (H/M/L)
    c. At risk of not meeting drinking water demands (Y/N)
    d. Address Human Rights to Water (Y/N)

Fine Screening:
Once the Projects for the Application have been accepted, should a project not meet the criteria below, they will be dropped from the Application.

5. Evaluate project development and documentation
    a. Technical Justification (i.e. Feasibility Study, Alternatives Analysis)
    b. Preliminary Design (design adequate to justify benefits and costs)
    c. Benefit Cost Analysis (i.e. Project Cost Estimate, Benefits Estimates)

Pajaro River Watershed IRWM Drought Funding Project Scoring

Project	Meets IRWM Goals	Project Specific Project Criteria and Score	Score	Project Cost	P84 IRWM Drought Grant Request Amount	Local Cost Match
Corralitos Creek Water Supply and Fisheries Enhancement Project	**Yes**	**Human Right to Water - 1 Readiness to Proceed - 3 Drought Mitigation - 1 Community At Risk of Not Meeting Drinking Water Demand - 3**	**8**	**$5,608,000**	**$5,608,000**	**$0**
South County Recycled Water Improvements	**Yes**	**Human Right to Water - 0 Readiness to Proceed - 2 Drought Mitigation - 3 Community At Risk of Not Meeting Drinking Water Demand – 3**	**8**	**$150,000**	**$150,000**	**$0**
Delivered Water Enhancement and Drought Response Irrigation Program	**Yes**	**Human Right to Water - 0 Readiness to Proceed - 2 Drought Mitigation -3 Community At Risk of Not Meeting Drinking Water Demand - 2**	**7**	**$3,515,000**	**$2,565,000**	**$950,000**
Wright Road Recycled Water Project	**Yes**	**Human Right to Water - 0 Readiness to Proceed - 2 Drought Mitigation - 3 Community At Risk of Not Meeting Drinking Water Demand - 2**	**7**	**$5,000,000**	**$3,700,000**	**$1,300,000**
Grant Administration	**Yes**	**N/A**	**N/A**	**$300,000**	**$300,000**	**$0**
Total Recommended Grant Funding for Pajaro River Watershed IRWM Region Drought Grant Application				**$14,573,000**	**$12,323,000**	**$2,250,000**
Integrated Aquifer Enhancement Program	Yes	Human Right to Water – 0 Readiness to Proceed - 2 Drought Mitigation - 1 Community At Risk of Not Meeting Drinking Water Demand - 2	5	$647,000	$0	$0

Notes:

1. The City of Watsonville will apply for the Disadvantaged Community waiver, therefore a local cost match is not required for the Corralitos Creek Water Supply and Fisheries Enhancement Project.
2. The local cost match requirement, excluding the City project, is 25% of the total project cost of $9 million. The local match requirement is $2.25 million.